

WHAT IS CLAIMED IS:

1. A distributed simulation system comprising:

5 a first node configured to participate in a simulation; and

 a second node configured to transmit a hot pull command designating the first
 node;

10 wherein, responsive to the hot pull command, the first node ceases participation in
 the simulation.

2. The distributed simulation system as recited in claim 1 further comprising a third
node, wherein the first node comprises a first simulation node configured to simulate a
15 first component of a system under test in the simulation, and wherein the third node
comprises a second simulation node configured to simulate a second component coupled
to the first component in the system under test.

3. The distributed simulation system as recited in claim 1 wherein the first node is
20 configured to cease participating in the simulation by responding to any subsequent
communications received by the first node with a no-operation command.

4. The distributed simulation system as recited in claim 1 wherein the first node is
configured to cease participating in the simulation by terminating execution and freeing
25 simulation resources assigned to the first node.

5. The distributed simulation system as recited in claim 1 further comprising a hub
coupled to the first node and the second node, wherein the hub is configured to cease
forwarding communications from the first node responsive to the hot pull command from

the second node.

6. The distributed simulation system as recited in claim 1 further comprising a hub coupled to the first node and the second node, wherein the hub is configured to terminate
5 execution in the first node and free simulation resources assigned to the first node responsive to the hot pull command.

7. The distributed simulation system as recited in claim 1 wherein the first node comprises a control node.
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8. The distributed simulation system as recited in claim 1 further comprising a third node, wherein the second node is configured to transmit a hot plug command designating the third node, and wherein the third node is configured to begin participating in the simulation responsive to the hot plug command.
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9. The distributed simulation system as recited in claim 8 wherein the first node is configured to simulate a first model of a first component of the system under test, and wherein the third node is configured to simulate a second model of the first component.

10. The distributed simulation system as recited in claim 9 wherein the first model simulates correct operation of the first component and the second model simulates faulty operation of the first component.
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11. A method comprising:
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receiving a hot pull command designating a first node in a distributed simulation system, the first node configured to participate in a simulation; and

ceasing participation of the first node in the simulation responsive to the hot pull

command.

12. The method as recited in claim 11 wherein the ceasing participation comprises responding to any subsequent communications received by the first node with a no-
5 operation command.

13. The method as recited in claim 11 wherein the ceasing participation comprises:

terminating execution in the first node; and
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freeing simulation resources assigned to the first node.

14. The method as recited in claim 11 wherein the distributed simulation system further comprises a hub coupled to the first node, wherein the ceasing participation comprises the
15 hub ceasing forwarding communications from the first node responsive to the hot pull command.

15. The method as recited in claim 11 wherein the distributed simulation system further comprises a hub coupled to the first node, the ceasing participation comprises:
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the hub terminating execution in the first node responsive to the hot pull command; and

the hub freeing simulation resources assigned to the first node responsive to the
25 hot pull command.

16. The method as recited in claim 15 further comprising:

the hub pausing the simulation prior to terminating execution in the first node; and

the hub resuming the simulation subsequent to the terminating execution and the freeing simulation resources.

- 5 17. The method as recited in claim 11 wherein the distributed simulation system further comprises a second node, the method further comprising:

transmitting a hot plug command designating the second node; and

- 10 the second node beginning participation in the simulation responsive to the hot plug command.

18. The method as recited in claim 17 wherein the first node is configured to simulate a first model of a first component of the system under test, and wherein the third node is
15 configured to simulate a second model of the first component.

19. The method as recited in claim 18 wherein the first model simulates correct operation of the first component and the second model simulates faulty operation of the first component.

- 20 20. One or more carrier media comprising:

first instructions which, when executed, cease participation of a first node in a simulation in a distributed simulation system responsive to receiving a hot
25 pull command.

21. The carrier media as recited in claim 20 further comprising:

second instructions which, when executed, transmit the hot pull command

designating the first node.

22. The carrier media as recited in claim 20 wherein the first instructions, when
executed, include responding to any subsequent communications received by the first
5 node with a no-operation command.

23. The carrier media as recited in claim 20 wherein the first instructions, when
executed,

10 terminate execution in the first node; and

free simulation resources assigned to the first node.

24. The carrier media as recited in claim 20 wherein the distributed simulation system
15 further comprises a hub coupled to the first node, and wherein the first instructions, when
executed, cease participation by ceasing forwarding communications from the first node
in the hub responsive to the hot pull command.

25. The carrier media as recited in claim 20 wherein the distributed simulation system
20 further comprises a hub coupled to the first node, and wherein the first instructions, when
executed, cease participation by:

causing the hub to terminate execution in the first node responsive to the hot pull
command; and

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causing the hub to free simulation resources assigned to the first node responsive
to the hot pull command.

26. The carrier media as recited in claim 20 wherein the distributed simulation system

further comprises a second node, the carrier media further comprising third instructions which, when executed,

transmit a hot plug command designating the second node; and

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cause the second node to begin participation in the simulation responsive to the hot plug command.

27. A distributed simulation system comprising:

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a first node configured to participate in a simulation; and

a second node configured to transmit a hot plug command designating the first node;

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wherein the first node does not participate in the simulation prior to the hot plug command, and wherein the first node begins participation in the simulation responsive to the hot plug command.

20 28. The distributed simulation system as recited in claim 27 further comprising a third node, wherein the first node comprises a first simulation node configured to simulate a first component of a system under test in the simulation, and wherein the third node comprises a second simulation node configured to simulate a second component coupled to the first component in the system under test.

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29. The distributed simulation system as recited in claim 27 wherein the first node not participating in the simulation includes responding to any subsequent communications received by the first node with a no-operation command.

30. The distributed simulation system as recited in claim 27 wherein the first node not participating in the simulation includes not executing in the first node and not assigning simulation resources to the first node prior to the hot plug command.

5 31. The distributed simulation system as recited in claim 27 wherein the first node is configured to begin participating in the simulation by responding to at least one communication with a communication other than a no-operation command.

32. The distributed simulation system as recited in claim 27 wherein the first node
10 beginning participation in the simulation includes assigning simulation resources to the first node.

33. The distributed simulation system as recited in claim 32 wherein the first node
beginning participation in the simulation further includes the first node coupling into the
15 distributed simulation system.

34. A method comprising:

receiving a hot plug command designating the first node, the first node configured
20 to participate in a simulation; and

the first node beginning participation in the simulation responsive to the hot plug
command;

25 wherein the first node does not participate in the simulation prior to the hot plug
command.

35. The method as recited in claim 34 wherein the first node not participating in the
simulation includes responding to any subsequent communications received by the first

node with a no-operation command.

36. The method as recited in claim 34 wherein the first node not participating in the simulation includes not executing in the first node and not assigning simulation resources
5 to the first node prior to the hot plug command.

37. The method as recited in claim 34 wherein the first node beginning participation in the simulation comprises responding to at least one communication with a communication other than a no-operation command.

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38. The method as recited in claim 34 wherein the first node beginning participation in the simulation includes assigning simulation resources to the first node.

39. The method as recited in claim 38 wherein the first node beginning participation in
15 the simulation further includes the first node coupling into the distributed simulation system.